

**Control/Tracking Number:** 06-A-160-SPD37

**Activity:** Standard Submission

**Current Date/Time:** 17/4/2006 11:11:35 AM

## **The Virtual Solar Observatory and the Heliophysics Meta-Virtual Observatory**

**Author Block** Joseph B. Gurman<sup>1</sup>, R. Bogart<sup>2</sup>, K. Tian<sup>2</sup>, F. Hill<sup>3</sup>, I. Suárez-Sola<sup>3</sup>, P. C. Martens<sup>4</sup>, K. Yoshimura<sup>4</sup>, A. Davey<sup>5</sup>, G. Dimitoglou<sup>1</sup>, J. Hourclé<sup>1</sup>

*<sup>1</sup>NASA Goddard Space Flight Center, <sup>2</sup>Stanford University, <sup>3</sup>National Solar Observatory, <sup>4</sup>Montana State University, <sup>5</sup>Southwest Research Institute.*

The Virtual Solar Observatory (VSO) is now able to search for solar data ranging from the radio to gamma rays, obtained from space and groundbased observatories, from 26 sources at 12 data providers, and from 1915 to the present. The solar physics community can use a Web interface or an Application Programming Interface (API) that allows integrating VSO searches into other software, including other Web services. Over the next few years, this integration will be especially obvious as the NASA Heliophysics division sponsors the development of a heliophysics-wide virtual observatory (VO), based on existing VO's in heliospheric, magnetospheric, and ionospheric physics as well as the VSO. We examine some of the challenges and potential of such a "meta-VO."

**Category (Complete):** 16. Computing topics (image processing, virtual observatories)